MGG TECHNICAL MANIFEST: GHOST-SKIN RANGE

Core Pillars: #7 (Skin), #7A (Cap), #7B (Brick), #7C (Accessories: Gloves/Scarf)

Conception Date: January 2026

Status: 10/10 Technical Maturity

I. SYSTEM OVERVIEW

The Ghost-Skin Range is an Adaptive Multispectral Surface Logic (AMSL) ecosystem. It is a modular "Slave Unit" architecture that offloads all heavy processing to the **Dragon Chip Ghost AMP**. The range allows for real-time changes in visual identity, texture, and physical silhouette.

II. THE GHOST-BRICK INTERCONNECT (#7B)

The foundation of the range is the **Ghost-Brick** modular system:

- **Mechanical:** Self-mating Neodymium N52 magnetic interlocks with a structural "Lip-and-Groove" design.
- **Electrical:** 8-pin gold-plated Pogo-Pins supporting 5V VCC and I2C daisy-chain data topology.
- **Logic:** Auto-detection of panel removal or addition in **<10ms**.

III. PRODUCT COMPONENTS

- **The Ghost-Skin Suit:** Full-body modular panels for maximum display area and tactical camouflage.
- **The Ghost Cap (#7A):** The high-volume entry node for "Instant Identity" (sports logos, superhero textures).
- **Ghost Gloves & Scarf (#7C):** Accessory nodes using the same Ghost-Brick tech to extend the display surface to the extremities, allowing for synchronized hand-gestures and neck-line "signage" or thermal management.

IV. DUAL-LAYER DISPLAY TECHNOLOGY

- **Static Layer: E-Ink Prism 3 Color Film** (150 PPI, 0W static power) for camouflage and persistent fashion patterns.
- **Dynamic Layer: Stretchable Micro-LED Strings** (90Hz, 1,000 nits) for high-refresh video and "Iron Man" style UI transitions.

V. POWER & LATENCY

- **Power:** Hybrid Architecture. **Solid-State Thin-Film Batteries** (2,400mAh) provide primary energy, while **Rectenna RF Harvesting** (2.45 GHz) provides trickle-charge maintenance.
- **Latency:** Total System Latency of **<35ms** (from HAWK AI Scout sampling to Ghost-Skin render), ensuring motion-imperceptible environmental blending.

VI. ALTERNATIVE EMBODIMENTS & ACCESSORIES

While the primary focus is on the suit and cap, the IP explicitly covers:

1. **Ghost Gloves:** Integrated haptic-display surfaces for interaction.
2. **Ghost Scarf:** Variable-width display wrap for high-fashion "Identity Play."
3. **Shape-Memory Actuation:** Use of Nitinol (SMA) wires for automated pleating and silhouette transformation.

VII. DEFENSIVE PUBLICATION CLAIMS

- **Claim 1:** A modular garment utilizing a hybrid power system of SSTB and RF-rectenna harvesting.
- **Claim 2:** A magnetic interconnect (Ghost-Brick) for hot-swappable data/power transfer.
- **Claim 3:** A dual-layer display architecture (E-Ink + Micro-LED) for wearables.
- **Claim 4:** A method for active camouflage with total system latency <35ms.
- **Claim 5:** Integrated accessory nodes (Gloves/Scarf/Cap) synchronized via a master FPGA arbitrator (Dragon Chip).